

SAFETY DATA SHEET

1. IDENTIFICATION

Product name: tert-Butyl Methyl Ether
Product code: B0991
Company: MIT-IVY INDUSTRY CO., LTD
Address: Chemical Industry Park, 69 Guozhuang Road, Yunlong District, Xuzhou City, Jiangsu Province, China 221100
Responsible Department: Sales Department
Telephone: +86-15252035038
Fax: 86-0516-837691395
e-mail: INFO@MIT-IVY.COM
Emergency telephone: +86 13805212761
Revision number: 1

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

PHYSICAL HAZARDS

Flammable liquids Category 2

HEALTH HAZARDS

Acute toxicity (Oral) Category 5

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

Carcinogenicity Category 2

Specific target organ toxicity Respiratory tract irritation, Narcotic effects

- Single exposure [Category 3]

Aspiration hazard Category 1

ENVIRONMENTAL HAZARDS

Not classified

Label elements

Pictograms or hazard symbols



Signal word

Danger

Hazard statements

Highly flammable liquid and vapour
 May be harmful if swallowed
 Causes skin irritation
 Causes serious eye irritation
 Suspected of causing cancer
 May cause respiratory irritation
 May cause drowsiness or dizziness
 May be fatal if swallowed and enters airways

Precautionary statements
[Prevention]

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat, sparks, open flames and hot surfaces. -No smoking.
 Keep container tightly closed.
 Ground and bond container and receiving equipment.
 Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.
 Avoid breathing mist, vapors or spray.
 Use only outdoors or in a well-ventilated area.

Wash hands and face thoroughly after handling.

Wear protective gloves, protective clothing, face protection.

[Response]

IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting.

IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

IF exposed or concerned: Get medical advice or attention.

In case of fire: Use dry chemical, dry sand or foam to extinguish.

[Storage]

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

[Disposal]

Dispose of contents and container in accordance with local, regional, national regulations.

Other hazards which do not result in classification

May form explosive peroxides.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture:	Substance
Components:	tert-Butyl Methyl Ether
Percent:	>99.0%(GC)
CAS RN:	1634-04-4
Synonyms:	Methyl tert-Butyl Ether , MTBE
Chemical Formula:	C ₅ H ₁₂ O

4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.

Skin contact: Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Get medical advice/attention.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention.

Ingestion: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.

Protection of first-aiders: A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Dry chemical, foam, carbon dioxide.

Unsuitable extinguishing media: Water (It may scatter and spread fire.)

Precautions for firefighters: Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Keep containers cool by spraying with water. Eliminate all ignition sources if safe to do so.

Special protective equipment for firefighters: When extinguishing fire, be sure to wear personal protective equipment

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions:	Prevent product from entering drains.
Methods and materials for containment and cleaning up:	Absorb spilled material in dry sand or inert absorbent before recovering it into an airtight container. In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
Prevention of secondary hazards:	Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

7. HANDLING AND STORAGE**Precautions for safe handling**

Technical measures:	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated.
Advice on safe handling:	Avoid all contact! Confirm in advance if peroxides exist when operations involving heating such as distillation are carried out.

Conditions for safe storage, including any incompatibilities

Storage conditions:	Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store locked up. Store away from incompatible materials such as oxidizing agents.
Packaging material:	Comply with laws.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls:	Install a closed system or local exhaust. Also install safety shower and eye bath.
Exposure limits:	
ACGIH TLV(TWA):	50 ppm
Personal protective equipment	
Respiratory protection:	Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.
Hand protection:	Impervious gloves.
Eye protection:	Safety goggles. A face-shield, if the situation requires.
Skin and body protection:	Impervious protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C):	Liquid
Form:	Clear
Colour:	Colorless
Odour:	Slight Pungent
pH:	No data available
Melting point/freezing point:	-108°C
Boiling point/range:	55°C
Flash point:	-28°C
Flammability or explosive limits:	
Lower:	1.6%
Upper:	15.1%
Vapour pressure:	27kPa/20°C
Vapour density:	3.1
Relative density:	0.74
Solubility(ies):	
[Water]	Soluble (4.8g/100g)
[Other solvents]	
Miscible:	Ether, Alcohols
Log Pow:	1.06
Autoignition temperature:	375°C

10. STABILITY AND REACTIVITY

Chemical stability:	May form explosive peroxides.
Possibility of hazardous reactions:	No special reactivity has been reported.
Conditions to avoid:	Spark, Open flame, Static discharge, Air
Incompatible materials:	Oxidizing agents, Strong acids
Hazardous decomposition products:	Carbon dioxide, Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	ihl-rat LC50:23576 ppm/4H ivn-rat LDLo:148 mg/kg ipr-rat LD:>148 mg/kg ori-rat LD50:4 g/kg
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	
IARC =	Group 3 (Not classifiable as carcinogenic to humans)
NTP =	No data available
Reproductive toxicity:	No data available
RTECS Number:	KN5250000

12. ECOLOGICAL INFORMATION

Ecotoxicity:	
Fish:	No data available
Crustacea:	No data available
Algae:	No data available
Persistence / degradability:	No data available
Bioaccumulative potential(BCF):	1.5
Mobility in soil	
Log Pow:	1.06
Soil adsorption (Koc):	No data available
Henry's Law (PaM³/mol):	No data available

13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. You may be able to burn in a chemical incinerator equipped with an afterburner and scrubber system but exert extra care in igniting as this material is highly flammable. Observe all federal, state and local regulations when disposing of the substance

14. TRANSPORT INFORMATION

Hazards Class: 3: Flammable liquid.
UN-No: 2398
Proper shipping name: Methyl tert-butyl ether
Packing group: II

15. REGULATORY INFORMATION

Regulations on the Control over Safety of Dangerous Chemicals (State Council announces on January 26, 2002 and revised on February 16,2011): Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

This product is included in the list of dangerous chemicals(2015)/Serial No.: 1148

16. OTHER INFORMATION

The reference company name of written contents

Company: MIT-IVY INDUSTRY CO., LTD
Address: Chemical Industry Park, 69 Guozhuang Road, Yunlong District, Xuzhou City, Jiangsu Province, China 221100
Department: Technical Information Department
Emergency telephone: +86-13805212761
Fax: +86-0516-83769139

This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.